

## A new species in the genus *Odontothrips* Amyot & Serville, 1843 (Thysanoptera: Thripidae) from China

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**Abstract:** This paper describes a new species of the genus *Odontothrips* from China, *O. bifurcus* sp. nov. This new species can be distinguished from *O. pentatrachopus* Han & Cui by the combination of interocellar setae arising on the outside line between fore ocellus and hind ocelli (vs. interocellar setae arising on the middle line between fore ocellus and hind ocelli), metanotum with a pair of campaniform sensilla on median part (vs. metanotum without campaniform sensilla), and abdominal tergite X with a pair of median setae bifurcated (vs. median setae on abdominal tergite X normal, not bifurcated). It can be distinguished from *O. phaseoli* Kurosawa by the combination of fore wing first vein uninterrupted (vs. fore wing first vein interrupted, with 2 distal setae) and abdominal tergite X with a pair of median setae bifurcated (vs. median setae on abdominal tergite X normal, not bifurcated).

**Key words:** Thripinae; *Odontothrips bifurcus*; taxonomy; thrips

### 中国齿蓟马属一新种（缨翅目：蓟马科）

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**摘要:** 记述中国齿蓟马属 1 新种: 叉鬃齿蓟马 *Odontothrips bifurcus* sp. nov.。该新种与近缘种 *O. pentatrachopus* Han & Cui 的区别如下: 单眼间鬃位于前后单眼的外缘连线上 (*O. pentatrachopus* 位于前后单眼中心连线上), 后胸盾片有 1 对位于中部的钟感器 (*O. pentatrachopus* 后胸盾片无钟感器), 腹节 X 背板中对鬃叉状 (*O. pentatrachopus* 腹节 X 背板中对鬃非叉状)。新种前翅前脉鬃连续不间断、腹节 X 背板中对鬃叉状也与近缘种 *O. phaseoli* Kurosawa 有明显区别, *O. phaseoli* 前翅前脉有间断、端鬃 2 根; 腹节 X 背板中对鬃非叉状。

**关键词:** 蓟马亚科; 叉鬃齿蓟马; 分类; 蓟马

## Introduction

*Odontothrips*, a small genus in the Thripidae, was erected by Amyot & Serville in 1843. The type species, *O. phaleratus* (Haliday, 1836), was subsequently designated by Karny (1907). Later Priesner (1949) designated *Thrips ulicis* Haliday as its type species, but it is not regarded as valid (Han 1997). Up to now, about 42 nominal species have been described worldwide, but only 33 are regarded as valid (ThripsWiki 2017). Most of them are distributed in the Palearctic and Nearctic Regions.

In China, Kurosawa (1941) first described and reported a species of *Odontothrips*, *O. phaseoli*, from Heilongjiang. Decades later, Han & Cui (1992) described *O. pentatrichopus* from Sichuan. Yang *et al.* (1993) reported 3 species, *O. confusus* Priesner, *O. biuncus* John and *O. loti* (Haliday) from Ningxia and Inner Mongolia. Feng & Zhao (1994) and Feng & Zhang (2000) described 2 new species, *O. yinggeensis* Feng & Zhao and *O. qinlingensis* Feng & Zhao. Dang *et al.* (2010) reported another 2 species, *O. intermedius* (Uzel) and *O. mongolicus* Pelikán. Xie *et al.* (2010) reported another species, *O. yunnanensis* from Yunnan. Dang (2010) and Huang (2011) described 3 new species of *Odontothrips* in their master's theses. However, Huang (2011) indicated in her thesis that those species still needed to be published as a research article, so these 3 species were not considered in the species of *Odontothrips* reported from China. Mirab-balou *et al.* (2011) reported *O. meliloti* in their checklist of Thysanoptera from China, but these authors did not provide any reference to this species; so the presence of *O. meliloti* still requires further confirmation. Hu *et al.* (2012) described a new species *O. hani*, and recognized *O. yinggeensis* and *O. qinlingensis* as synonyms of *O. loti*. On the basis of the above statements, 10 species have been recorded in China. Among these species, *Odontothrips loti* is very common in northern China, and it prefers to feeding on flowers of *Anthyllis*, *Medicago*, *Melilotus* and *Trifolium* (Han 1997). Moreover, *O. loti* sometimes seriously devours alfalfa and other crops. In this paper we describe a new species, *Odontothrips bifurcus* sp. nov. from China.

## Material and methods

Preserved slide specimens were used in this study. Slides were prepared following the method of Zhang *et al.* (2006). All measurements in this paper are in micrometers (µm).

Type specimens of this new species are deposited in the Entomological Museum of Northwest A&F University (NWAUFU), Yangling, Shaanxi, China.

## Taxonomy

### Genus *Odontothrips* Amyot & Serville, 1843

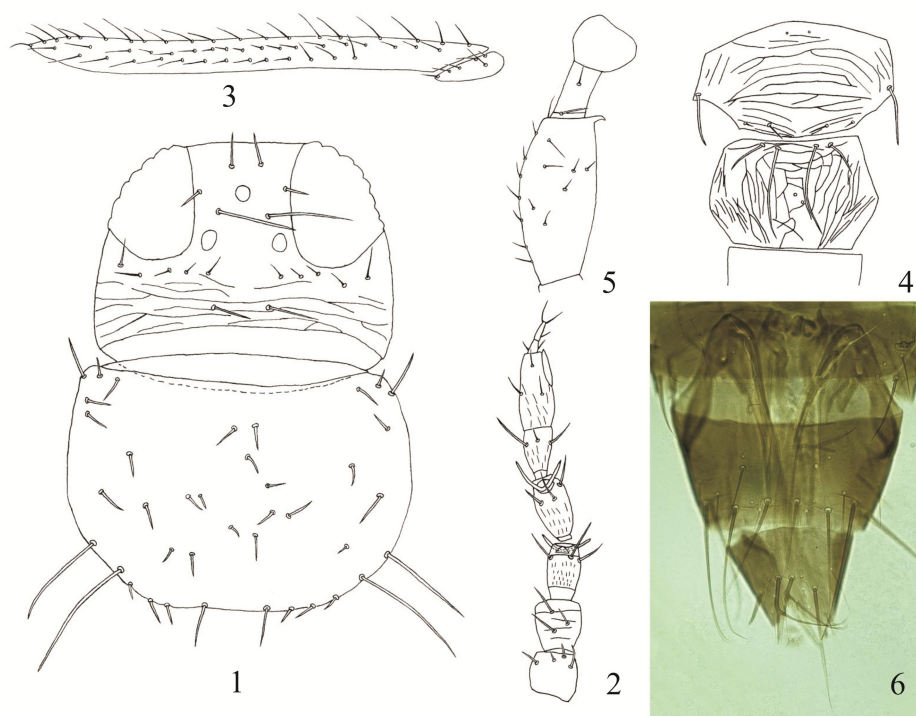
*Odontothrips* Amyot & Serville, 1843: 642, 643. Type species: *Odontothrips phaleratus* (Haliday); Karny, 1907: 45.

Description. Body length 1.3 to 2.0 mm. Antennae eight-segmented; segment III and often part of IV yellow, tarsi and fore tibiae yellow; both with a forked sensorium; sensoria on segment VI usually with base greatly enlarged. Maxillary palps three-segmented; labial palps two-segmented. Three pairs of ocellar setae; pair III longer than distance between ocelli.

Pronotum with two pairs of long posteroangular setae; metanotum with two pairs of setae very close to or on anterior margin; median pair setae longer than lateral setae. Fore tibia usually with one or two claws at apex; tarsi two-segmented, pretarsi often with one or two small teeth or tubercles. Abdominal tergite VIII of female with posteromarginal comb of microtrichia, which is broadly interrupted medially, small number of microtrichia anterolaterally near spiracles; tergite X of female with incomplete split; sternites without accessory setae. Males without sternal glands; endotheca of phallus usually with spines.

***Odontothrips bifurcus* sp. nov.** (Figs. 1–6)

Description. Female. Body brown; tarsi yellow; head, thorax and forewings with dark brown setae; setae on abdominal segments yellow; antennal segments light brown, segment III yellowish; forewings yellowish, but about basal 1/4 paler; wing scales yellowish.



Figures 1–6. *Odontothrips bifurcus* sp. nov. 1. Head and pronotum; 2. Antenna; 3. Forewing; 4. Mesonotum and metanotum; 5. Fore tibia and tarsus; 6. Abdominal tergites VIII–X.

Head wider than long, with some transverse lines of sculpture behind eyes; ocelli adjacent to mid-posterior part of compound eyes; interocellar setae arising on the outside line between fore ocellus and hind ocelli; postocellar setae far away from postocelli; five pairs of setae behind eyes, S1, S2, S3 in straight line. Antennal segment III and IV with short stems at base and forked sensoria respectively; antennal segment VI with base of sensorium greatly enlarged. Mouth cone pointed, extending to coxae of forelegs.

Pronotum smooth; with three pairs of short anteroangular setae; two long setae at each posterior angle; four pairs of posteromarginal setae, S1 longest; some short setae on surface.

Mesonotum with transverse lines of sculpture medially; posteroangular setae and median posterior setae near posterior margin. Anterior margin of metanotum with some transverse lines medially, broadly sparsely reticulate sculpturing posteriorly, some longitudinal lines laterally; 1 pair of campaniform sensilla present medially; anterior median setae and anteromarginal setae in straight row near anterior margin, former much longer than latter; mesosternum spinula present, metasternum spinula absent. Forewings with 20 anteromarginal setae respectively; first vein setae uninterrupted (Fig. 3); second vein setae 13; scale with five marginal setae. Fore tibiae with a small recurved claw at apex; tarsi two-segmented, pretarsi without tooth.

Abdominal tergites II–VIII with transverse lines of sculpture laterally respectively, anterior margin of tergites I–VII with weak lines dark respectively; tergite II with three lateral setae; tergites V–VIII without ctenidia laterally; tergite VIII with weak posteromarginal comb, only some sparse microtrichia laterally, which is broadly interrupted medially; tergite X with pair of median setae bifurcated (Fig. 6); sternite VIII with median pair of setae in front of posterior margin, other sternites with posteromarginal setae at posterior margin; pleurites with four or five teeth on posterior margin, without accessory setae.

Measurements (female,  $n = 3$ , in microns). Body length 1300. Head, length 120; maximum width 154; compound eyes length 70; ocellar setae pair I length 24, pair II length 18, pair III length 60. Maxillary palpal segments I–III lengths: 12, 8, 26 respectively. Antennal segments I–VIII length (width): 30 (30), 36 (30), 48 (26), 48 (24), 36 (22), 48 (25), 10 (6), 16 (4) respectively. Pronotum length 144, width 196; posteroangular setae length, outer pair 60, inner pair 72; posteromarginal setae S1 length 24. Anterior median setae on metanotum length 60, anteromarginal setae length 28. Abdominal tergite IX setae: S1 length 84, S2 length 120, S3 length 120, respectively.

Male. Unknown.

**Holotype.** ♀, **China**, Shaanxi Province, Mt. Taibaishan, 2250 m, 15-VII-2002, coll. Guiling ZHANG. **Paratypes.** 2♀, data same as holotype.

Host plant. Unknown, collected by sweeping nets.

**Etymology.** This specific epithet refers to abdominal tergite X with a pair of bifurcated median setae.

**Notes.** This new species is similar to *O. pentatrachopus* Han & Cui, but can be distinguished from the latter by the following characters: interocellar setae arising on the outside line between fore ocellus and hind ocelli (vs. interocellar setae arising on the middle line between fore ocellus and hind ocelli), metanotum with a pair of campaniform sensilla on median part (vs. metanotum without campaniform sensilla), and abdominal tergite X with a pair of median setae bifurcated (vs. median setae on abdominal tergite X normal, not bifurcated). This new species is very similar to *O. phaseoli* Kurosawa, but can be distinguished from the latter by the following characters: fore wing first vein uninterrupted (vs. fore wing first vein interrupted, with 2 distal setae) and abdominal tergite X with a pair of median setae bifurcated (vs. median setae on abdominal tergite X normal, not bifurcated).

## Acknowledgements

This project was supported by the National Natural Science Foundation of China

(31272344), the Young Talent Support Program from the Association for Science and Technology of Colleges in Shaanxi Province (20160235), the Scientific Research Project from the Educational Department of Shaanxi Provincial Government (17JS040), and the Special Foundation for Young Scientists of Weinan Normal University in 2015 (15ZRRC03).

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